

LISTING OF CLAIMS

1. (Currently Amended) A radio frequency device having a null or quasi-null intermediate frequency, intended to receive or transmit a radio frequency signal wherein ~~whereof~~ the transmit or receive frequency is part of a frequency range subdivided into frequency channels, wherein the device ~~it~~ comprises, on a ~~the~~ same electronic chip, frequency transposition means connected to a ~~local~~ main local oscillator, the frequency transposition means using an output of the local main oscillator to transpose the received radio frequency signal to the null or quasi-null intermediate frequency, and wherein ~~in that~~ the main local oscillator is incorporated inside a main phase locked loop receiving a first reference frequency that is supplied by a voltage-controlled auxiliary oscillator, itself incorporated into an auxiliary phase locked loop receiving a second reference frequency that is less than the first reference frequency output from the voltage-controlled auxiliary oscillator, wherein the first reference frequency of the main phase locked loop is a) less than the output frequency of the main local oscillator, b) greater than 10 times the frequency spacing of the frequency channels reduced to the output frequency of the main local oscillator, and c) removed from a frequency which is a whole integer multiple of the transmit or receive frequency, wherein a spacing between the first reference frequency of the main phase locked loop and a whole integer multiple of the transmit or receive frequency is at least the cut-off frequency of the main phase locked loop.

2. (Currently Amended) The radio frequency device as claimed in Claim 1, wherein the auxiliary phase locked loop comprises a whole divider and in that the reference frequency of the auxiliary phase locked loop is less than or equal to ~~-, preferably equal to,~~ the frequency spacing of the frequency channels if the transmit or receive frequency for such frequency spacing were reduced to the first reference frequency of the main phase locked loop.

3. (Currently Amended) The radio frequency device as claimed in Claim 1, wherein the first reference frequency of the main phase locked loop is greater than a twentieth of the output frequency of the main local oscillator.

4. (Currently Amended) The radio frequency device as claimed in Claim 1, wherein the range of frequencies to which the send or receive frequency belongs is in the vicinity of 900 MHz or 1800 MHz (corresponding to the GSM or DCS standard), the first reference frequency of the main phase locked loop being equal to 450 MHz, whereas the second reference frequency of the auxiliary phase locked loop is equal to 50 kHz.

5. (Currently Amended) The radio frequency device as claimed in Claim 1, wherein the electronic chip also comprises the two phase locked loops.

6. (Currently Amended) The radio frequency device as claimed in Claim 5, wherein the radio frequency device it is integrally produced on said electronic chip.

7. (Currently Amended) A component of a wireless communications system, wherein the component ~~it~~ incorporates ~~{a}}~~ the radio frequency device as claimed in Claim 1.

8. (Currently Amended) The component as claimed in Claim 7, wherein the component ~~it~~ forms a cellular mobile telephone.

Claims 9-24. (Canceled).

25. (Currently Amended) A radio frequency device having a null or quasi-null intermediate frequency, intended to receive or transmit a radio frequency signal having a frequency that is part of a frequency range subdivided into frequency channels, comprising:

a frequency transposition mixer;

a local main oscillator connected to the mixer, the mixer frequency transposing the radio frequency signal in response to an output of the local main oscillator to the null or quasi-null intermediate frequency;

a main phase locked loop incorporating the local main oscillator (VCOP) receiving a first reference frequency;

a voltage-controlled auxiliary oscillator (VCOA) supplying the first reference frequency;
and

an auxiliary phase locked loop incorporating the voltage controlled auxiliary oscillator receiving a second reference frequency;

wherein the second reference frequency is less than the first reference frequency; and

wherein the first reference frequency is less than an output frequency of the local main oscillator, is greater than ten times a spacing of the frequency channels reduced to the output frequency of the local main oscillator, and is removed from a frequency which is a whole integer multiple of the frequency for the radio frequency signal, wherein a spacing between the first reference frequency of the main phase locked loop and a whole integer multiple of the transmit or receive frequency is at least the cut-off frequency of the main phase locked loop.

26. (Currently Amended) The radio frequency device as claimed in Claim 25, wherein the auxiliary phase locked loop comprises a whole divider and in that the second reference frequency of the auxiliary phase locked loop is less than or equal to the spacing of the frequency channels if the radio frequency signal for such spacing were reduced to the first reference frequency.

27. (Currently Amended) The radio frequency device as claimed in Claim 25, wherein the first reference frequency of the main phase locked loop is greater than a twentieth of the output frequency of the local main oscillator.

28. (Currently Amended) The radio frequency device as claimed in Claim 25, wherein the range of frequencies to which the frequency of the local main oscillator belongs is in the vicinity of 900 MHz or 1800 MHz, the first reference frequency is about 450 MHz, and the second reference frequency is about 50 kHz.

29. (Currently Amended) The radio frequency device as is claim 25 wherein the device is fabricated as an integrated circuit chip.

30. (Currently Amended) The radio frequency device as claimed in Claim 29, wherein the radio frequency device ~~it~~ is integrally produced on said electronic chip.

31. (Currently Amended) The local oscillator of claim 9 wherein the second reference signal has a frequency which is an integer multiple of a cut-off frequency of the auxiliary second phase lock loop.